NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).

2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).

3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).

[X] 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."

5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).

6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).

7. Other: _

Applicant Must Provide:

[x] An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".

[X] An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.

[x] A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g).

For questions regarding compliance to these requirements, please contact:
- For Rules Interpretation, call (703) 308-4216 or (703) 308-2923
- For CRF Submission Help, call (703) 308-4212
- For PatentIn software Program Support:
  - HELP DESK: (703) 739-8559, ext 508, M-F, 8 AM to 5 PM EST except holidays
  - Email: PATIN21HELP@uspto.gov
  - To purchase PatentIn sofftware (703) 306-2600

PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE
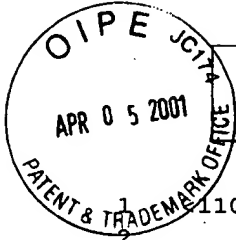
Gabriele E. Bugaisky
AU 1653
3/15/01 (703)308-4201

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   1   <110>  APPLICANT: Watkins, Maren
   2             Olivera, Baldomero M.
   3             Hillyard, David R.
   4             McIntosh, J. Michael
   5             Jones, Robert M.
   6   <120>  TITLE OF INVENTION: Alpha-Conotoxin Peptides
   7   <130>  FILE REFERENCE: Alphas 2
   8   <140>  CURRENT APPLICATION NUMBER: US/09/493,795
   9   <141>  CURRENT FILING DATE: 2000-01-28
  10   <150>  EARLIER APPLICATION NUMBER: US 60/118,381
  11   <151>  EARLIER FILING DATE: 1999-01-29
  12   <160>  NUMBER OF SEQ ID NOS: 404
  13   <170>  SOFTWARE: PatentIn Ver. 2.0
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79   N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any
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88   N,N,N-trimethyl-Lys or any
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92   <223> OTHER INFORMATION: unnatural basic amino acid; Xaa at residue 16 is
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[Handwritten annotation:] Cys is at residue 16 - do y. mean 17 Xaa is at location

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      96        acid.
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      107       Peptide Generic Formula II.
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      114       is des-Xaa, Gly, Ala, Asp, Glu, Gla, Pro or
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151         Phe, Trp (D or L), neo-Trp, halo-Trp, Arg,
152         ornithine,
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158         acid or any unnatural aromatic amino acid; Xaa at
159         residue 13 is Ala, Asn, Phe, Pro, hydroxy-Pro,
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163   <223> OTHER INFORMATION: Glu, Gla, Gln, His, halo-His, Val, Ser, Thr, Arg,
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166         unnatural basic amino acid.
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173         N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any
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180         nitro-Tyr or any unnatural hydroxy containing
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182         hydroxy-Pro, Gln, Ser, Thr,
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198          nitro-Tyr or any
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200   <221> NAME/KEY: PEPTIDE
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205          N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any
206          unnatural
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208   <221> NAME/KEY: PEPTIDE
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210   <223> OTHER INFORMATION: basic amino acid, Tyr, nor-Tyr, mono-halo-Tyr,
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212          nitro-Tyr or any unnatural hydroxy containing
213          amino acid; Xaa at residue 19 is des-Xaa, Gly,
214          Ala, Met, Ser,
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218   <223> OTHER INFORMATION: Thr, Trp (D or L), neo-Trp, halo-Trp, any
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220          homoarginine, Lys, N-methyl-Lys, N,N-dimethyl-Lys,
221          N,N,N-trimethyl-Lys or any unnatural basic amino
222          acid.
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230          N,N,N-trimethyl-Lys or any
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236          N-methyl-Lys, N,N-dimethyl-Lys,
237          N,N,N-trimethyl-Lys or any unnatural basic amino
238          acid.
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W-

W-->

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220> to
<223> fields of each sequence which presents at least one n or Xaa.

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3084	W	"N" or "Xaa" used: Feature required	Asp Cys Cys Ser Asn Xaa Xaa Cys Ala His A
3097	W	"N" or "Xaa" used: Feature required	Xaa Cys Cys Thr Asn Xaa Val Cys His Ala X
3111	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser Asn Xaa Val Cys His Leu X
3124	W	"N" or "Xaa" used: Feature required	Xaa Cys Cys Thr Asn Xaa Val Cys His Val X
3145	W	"N" or "Xaa" used: Feature required	Xaa Xaa Cys Cys Ser Xaa Xaa Ala Cys Asn L
3159	W	"N" or "Xaa" used: Feature required	Xaa Xaa Cys Cys Ser Asp Xaa Arg Cys Asn S
3181	W	"N" or "Xaa" used: Feature required	Leu Asn Cys Cys Met Ile Xaa Xaa Cys Xaa X
3183	W	"N" or "Xaa" used: Feature required	Cys Ser Xaa Val Arg
3198	W	"N" or "Xaa" used: Feature required	Ala Phe Gly Cys Cys Asp Leu Ile Xaa Cys L
3200	W	"N" or "Xaa" used: Feature required	Arg Cys Asn Xaa Val His
3221	W	"N" or "Xaa" used: Feature required	Leu Gly Cys Cys Asn Val Thr Xaa Cys Xaa X
3223	W	"N" or "Xaa" used: Feature required	Cys Asn Xaa Val Arg
3235	W	"N" or "Xaa" used: Feature required	Asp Xaa Cys Cys Ser Asn Xaa Ala Cys Arg V
3258	W	"N" or "Xaa" used: Feature required	Leu Asn Cys Cys Ser Ile Xaa Gly Cys Xaa A
3260	W	"N" or "Xaa" used: Feature required	Cys Ser Xaa Val Arg
3274	W	"N" or "Xaa" used: Feature required	Gly Gly Cys Cys Ser His Xaa Val Cys Xaa P
3286	W	"N" or "Xaa" used: Feature required	Gly Gly Cys Cys Ser His Xaa Val Cys Asn L
3301	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Xaa Cys Xaa Ala A
3314	W	"N" or "Xaa" used: Feature required	Gly Gly Cys Cys Ser His Xaa Ala Cys Ser V
3330	W	"N" or "Xaa" used: Feature required	Gly Gly Cys Cys Ser Xaa Xaa Ala Cys Ser V
3351	W	"N" or "Xaa" used: Feature required	Val Ser Cys Cys Val Val Arg Xaa Cys Xaa I
3353	W	"N" or "Xaa" used: Feature required	Cys Leu Xaa Ala Asp Xaa Arg Thr Leu
3374	W	"N" or "Xaa" used: Feature required	Xaa Asn Cys Cys Ser Ile Xaa Gly Cys Xaa X

Input Set: I493795.RAW

Line	?	Error/Warning	Original Text
3376	W	"N" or "Xaa" used: Feature required	Cys Ser Xaa Val Arg
3388	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser Asn Xaa Val Cys His Leu X
3402	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser Asn Xaa Ile Cys Xaa Phe A
3422	W	"N" or "Xaa" used: Feature required	Xaa Cys Cys Ser Gln Xaa Xaa Cys Arg Xaa X
3434	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Ala Cys Ala Gly A
3445	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ala Val Xaa Ser Cys Arg Leu A
3457	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Ala Cys Asn Val A
3470	W	"N" or "Xaa" used: Feature required	Thr Xaa Xaa Xaa Cys Cys Xaa Asn Xaa Xaa C
3485	W	"N" or "Xaa" used: Feature required	Asp Ala Cys Cys Ser Asp Xaa Arg Cys Ser G
3498	W	"N" or "Xaa" used: Feature required	Xaa Asp Cys Cys Ser Asp Xaa Arg Cys Ser V
3510	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Ala Cys Ala Gly S
3522	W	"N" or "Xaa" used: Feature required	Xaa Asp Cys Cys Ser Asp Xaa Arg Cys Ser V
3534	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Ala Cys Ala Gly A
3548	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Gly Asn Xaa Ser Cys Ser Ile H
3561	W	"N" or "Xaa" used: Feature required	Thr Asp Ser Xaa Xaa Cys Cys Leu Asp Ser A
3577	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser Asn Xaa Xaa Cys Xaa Ala A
3589	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Ala Cys Ser Val A
3608	W	"N" or "Xaa" used: Feature required	Gly Xaa Cys Cys Ile Asn Asp Ala Cys Arg S
3623	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Xaa Asn Ile Ala Cys Arg Ile A
3643	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Val Cys Arg Phe A
3659	W	"N" or "Xaa" used: Feature required	Asp Xaa Cys Cys Ala Ser Xaa Xaa Cys Arg L
3679	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser Asn Xaa Val Cys Xaa Gln A
3681	W	"N" or "Xaa" used: Feature required	Arg Xaa Ser
3694	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Xaa Cys Ala Gln A
3709	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Ala Cys Ser Gly A
3711	W	"N" or "Xaa" used: Feature required	Arg Xaa Ser
3725	W	"N" or "Xaa" used: Feature required	Asp Xaa Cys Cys Ser Xaa Xaa Asp Cys Gly A
3745	W	"N" or "Xaa" used: Feature required	Xaa Cys Cys Ser Gln Xaa Xaa Cys Arg Xaa X
3757	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Ala Cys Ala Gly A
3771	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser Asp Xaa Ser Cys Asn Val A
3784	W	"N" or "Xaa" used: Feature required	Xaa Xaa Cys Cys Ser Asp Xaa Arg Cys Ser V
3797	W	"N" or "Xaa" used: Feature required	Gly Gly Cys Cys Ser Asn Xaa Ala Cys Leu V
3809	W	"N" or "Xaa" used: Feature required	Arg Asp Xaa Cys Cys Phe Asn Xaa Ala Cys A
3822	W	"N" or "Xaa" used: Feature required	Cys Cys Ser Asp Xaa Ser Cys Xaa Arg Leu H
3835	W	"N" or "Xaa" used: Feature required	Cys Cys Thr Asn Xaa Ala Cys Leu Val Asn A
3847	W	"N" or "Xaa" used: Feature required	Asp Xaa Cys Cys Ser Asp Xaa Arg Cys His G
3859	W	"N" or "Xaa" used: Feature required	Asp Cys Cys Ser His Xaa Leu Cys Arg Leu P
3879	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Val Cys Xaa Val A
3891	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Ala Cys Asn Val A
3910	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Val Cys Xaa Val A
3923	W	"N" or "Xaa" used: Feature required	Gly Gly Cys Cys Ser His Xaa Ala Cys Xaa V
3936	W	"N" or "Xaa" used: Feature required	Val Cys Cys Ser Asn Xaa Val Cys His Val A
3949	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser His Xaa Val Cys Asn Leu S
3963	W	"N" or "Xaa" used: Feature required	Xaa Xaa Cys Cys Ser His Xaa Ala Cys Asn V
3975	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser Asn Xaa Ala Cys Leu Val A
3987	W	"N" or "Xaa" used: Feature required	Asp Cys Cys Asp Asp Xaa Ala Cys Thr Val A
4001	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Ser Asn Xaa Xaa Cys Ile Ala X
4024	W	"N" or "Xaa" used: Feature required	Cys Cys Thr Ile Xaa Ser Cys Xaa Xaa Xaa X
4038	W	"N" or "Xaa" used: Feature required	Gly Cys Cys Gly Asn Xaa Ala Cys Ser Gly S
4357	W	Invalid/Missing Amino Acid Numbering	

VERIFICATION SUMMARY
PATENT APPLICATION **US/09/493,795**

Input Set: **I493795.RAW**

Line ? Error/Warning   Original Text
----- - -- --
 4440 W Invalid/Missing Amino Acid Numbering